

Abstract of the Disclosure:

An alkali-free glass consists essentially of, in mass percent, 58-70% SiO_2 , 10-19% Al_2O_3 , 6.5-15% B_2O_3 , 0-2% MgO , 3-12% CaO , 0.1-5% BaO , 0-4% SrO , 0.1-6% $\text{BaO}+\text{SrO}$, 0-5% ZnO , 5-15% $\text{MgO}+\text{CaO}+\text{BaO}+\text{SrO}+\text{ZnO}$, 0-5% ZrO_2 , 0-5% TiO_2 , and 0-5% P_2O_5 . The alkali-free glass contains substantially no alkali metal oxide and has a density of $2.45\text{g}/\text{cm}^3$ or less, an average coefficient of thermal expansion of $25 \times 10^{-7}/^\circ\text{C}$ - $36 \times 10^{-7}/^\circ\text{C}$ within a temperature range between 30 and 380°C , and a strain point not lower than 640°C .